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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/494,278	01/30/2000	Bill J. Pope	6061 P	3224

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EXAMINER

ISABELLA, DAVID J

ART UNIT	PAPER NUMBER
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3738

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

EC

**Office Action Summary**

Application No.

09/494,278

Applicant(s)

POPE ET AL

Examiner

DAVID J ISABELLA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 July 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-28 is/are allowed.
- 6) ☒ Claim(s) 29,30,32-36,39-63,66 and 67 is/are rejected.
- 7) ☒ Claim(s) 31,37,38,64,65 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

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***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 56,57,66 and 67 are rejected under 35 U.S.C. 102(b) as being anticipated by Pope, et al (5,645,601).

Pope, et al discloses a prosthetic joint having first and second members with a fixation portion and a load bearing/articulation portion. The joint includes a volume of diamond on the load bearing/articulation portion.

Claims 66 and 67 see column 3.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 29-30,,32-36,39-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pope, et al (5,645,601 in view of Turchan et al (5,554,415).

Pope, et al discloses a prosthetic joint having first and second members with a fixation portion and a load bearing/articulation portion. The joint includes a volume of diamond on the load bearing/articulation portion. Turchan, et al teaches a method for coating a substrate with PCD via sintering. Additionally, Turchan, et al provides for a transition zone and the feature of a mechanical grip. Pope,et al is silent to specific methods to achieve a PCD coating on a substrate. Pope, et al describes that the PCD layer could be bonded to the joint surfaces by any satisfactory method including different methods for different surfaces. Turchan, et al outlines various known methods to provide for a PCD layer on surgical items including sintering. Moreover, Turchan, et al describes the provision of a gradient between the substrate and the PCD and the use of mechanical grip on the substrate to provide more effective bonding of the PCD (see columns 23 and 24). Pope, et al defines the broad concept of cooperating surfaces of a prosthetic joint being provided with a coating of PCD. This coating provides excellent tribological properties to the prosthesis. Pope, et al fails to disclose specific methods for providing the coating but states that those skilled in the art could use any known methods. Turchan, et al provides the specifics to the arrays of methods available to those skilled in the art including sintering. In light of the teachings of Turchan, et al, the joint/coating combination of Pope, et al would have been obvious to one of ordinary skill in the art based upon engineering considerations. The specifics to the chemical bonds, mechanical grip, topographical features, stress field, Ra value, polishing, specific

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orthopedic structure for bone applications, materials and substrate layers are fully disclosed in the patent to Turchan, et al.

Claims 58-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pope, et al (5,645,601) further in view of Turchan et al (5,554,415).

Pope, et al discloses a prosthetic joint having first and second members with a fixation portion and a load bearing/articulation portion. The joint includes a volume of diamond on the load bearing/articulation portion. Turchan, et al teaches a method for coating a substrate with PCD via sintering. Additionally, Turchan, et al provides for a transition zone and the feature of a mechanical grip. Pope, et al is silent to specific methods to achieve a PCD coating on a substrate. In fact, column 4, lines 1+, Pope, et al describes that the PCD layer could be bonded to the joint surfaces by any satisfactory method including different methods for different surfaces. Turchan, et al outlines various known methods to provide for a PCD layer on surgical items including sintering. Moreover, Turchan, et al describes the provision of a gradient between the substrate and the PCD and the use of mechanical grip on the substrate to provide more effective bonding of the PCD (see columns 23 and 24). Pope, et al defines the broad concept of cooperating surfaces of a prosthetic joint being provided with a coating of PCD. This coating provides excellent tribological properties to the prosthesis. Pope, et al fails to disclose specific methods for providing the coating but states that those skilled in the art could use any known methods. Turchan, et al provides the specifics to the arrays of methods available to those skilled in the art including sintering. In light of the teachings

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of Turchan, et al, the joint/coating combination of Pope, et al would have been obvious to one of ordinary skill in the art based upon engineering considerations.

***Allowable Subject Matter***

Claims 1-28 are allowed.

Claims 31,37,38,64,65 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed 6/27/02 have been fully considered but they are not persuasive.

Applicant's claimed for priority has not been perfected. The Inventors of the 5,645,601 patent are Pope and Garrick and the inventors of the current application are Pope, Taylor, Vail and Jensen. Clearly the inventor tree is not consistent. Note, US Patent 6010633 does not name the inventors party to this application.

Therefor, the outstanding rejections to the claims are maintained.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DAVID J ISABELLA** whose telephone number is 703-308-3060. The examiner can normally be reached on **MONDAY-FRIDAY**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **CORRINE MCDERMOTT** can be reached on 703-308-2111. The fax phone numbers for the organization where this application or proceeding is assigned

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are 703-305-3579 for regular communications and 703-305-3580 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.



DAVID J ISABELLA  
Primary Examiner  
Art Unit 3738

dji  
May 19, 2003